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U.S. Department of Transportation

Federal Aviation Administration

# U. S. CIVIL AIRMEN STATISTICS 1987

Office of Management Systems

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statistics on pilots and no	onpilots and the number of	certificates issued.
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### MANAGEMENT STANDARDS & STATISTICS DIVISION PUBLICATION INFORMATION

Below is a list of the publications compiled by the Management Standards & Statistics Division. Questions may be directed to us by phone: (202) 267-9938, or by writing Federal Aviation Administration, Management Standards & Statistics Division (AMS-400), 800 Independence Avenue, S.W., Washington, DC 20591.

FAA Statistical Handbook of Aviation is a convenient source for historical data. It presents statistical information pertaining to the Federal Aviation Administration, the National Airspace System, Airports, Airport Activity, U.S. Civil Air Carrier Fleet, U.S. Civil Air Carrier Operating Data, Airmen, General Aviation Aircraft, Aircraft Accidents, Aeronautical Production & Import/Export.

Reporting period:

Calendar Year

Latest edition:

1986 data

Order from:

U.S. Government Printing Office or National Technical Information Service

Date 1987 information

will be available:

Various

Date next publication

is scheduled:

December 1988 (1987 data)

Person to contact:

Patricia Beardsley

U.S. Civil Airmen Statistics is an annual study of detailed airmen statistics. It contains calendar year statistics on pilot and nonpilots and the number of certificates issued.

Reporting period:

Calendar Year

Latest edition:

1987

Order from:

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Patricia Carter

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Census of U.S. Civil Aircraft is an annual publication that includes statistical data on the registered civil fleet, air carrier aircraft, and general aviation aircraft--both registered and active, detailed reports for general aviation aircraft by owner's state and county, and registered aircraft by make and model.

> Reporting period: Latest edition:

Calendar Year 1986 data

Order from:

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June 1988

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is scheduled:

September 1988 (1987 data)

Person to contact:

Patricia Beardsley

FAA Air Traffic Activity furnishes terminal and en route air traffic activity information (e.g., takeoffs & landings, flight plans filed) of the National Airspace System. The data is collected/compiled from the FAA-operated Airport Traffic Control Towers, Air Route Traffic Control Centers, Flight Service Stations, Approach Control Facilities, and FAA Contract-towered airports.

> Reporting period: Latest edition:

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Order from:

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Date 1987 information will be available:

April 1988

Date next publication

is scheduled:

May 1988 (1987 data)

Person to contact:

Nancy Trembley

General Aviation Activity and Avionics Survey publication presents the results of the general aviation activity and avionics survey conducted to obtain information on the activity and avionics of the U.S. registered general aviation aircraft fleet. The survey reveals estimated flying time of the active general aviation aircraft, and other statistics by manufacturer/model group, aircraft type, state and region of based aircraft, and primary use. Estimates are included on fuel consumption, lifetime airframe hours, avionics, and engine hours.

> Reporting period: Latest edition:

Calendar Year 1986 data

Order from:

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National Technical Information Service

Date 1987 Information will be available:

November 1988

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is available:

December 1988 (1987 data)

Person to contact:

Shung-Chai Huang

FAA Directory is published twice a year, it contains six sections of data: Washington/Region/Center headquarters' managers; field facilities' managers/supervisors; regional area maps/organizational charts; alphabetical listing; special interest groups; and glossary.

Latest edition:

April 1988

Order from:

U.S. Government Printing Office

Date next publication

is scheduled:

October 1988

Person to contact:

Nancy Trembley

Airport Activity Statistics of Certificated Route Air Carriers is a joint publication of the Federal Aviation Administration (FAA) and the Research & Special Programs Administration (RSPA). RSPA furnishes airport activity data on certificated route air carriers; FAA organizes/publishes it. Included in the data are passenger enplanements, tons of enplaned freight, express and mail. Both scheduled/nonscheduled service and domestic/international operations shown by airport and carrier are also included. Breakdown of data includes departures/enplanements/cargo/mail by airport, carrier & type of operation, and type of aircraft.

Reporting period:

Calendar Year

Latest edition:

1986 data

Order from:

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Date 1987 Information will be available:

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Date next publication

is available:

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Person to contact:

Patricia Beardsley

### ORDERING INFORMATION

Addresses are listed below for ordering purposes.

National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161. To call use (703) 487-4650 if you have a stock number or (703) 487-4780 if you do not have a stock number.

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Seattle Bookstore, Rm. 194, Fed. Off. Bldg., 915 Second Avenue, Seattle, WA 98174, FTS 399-4270, Commercial 206-442-4270.

### PREFACE

The U.S. Civil Airmen Statistics is an annual study published to meet the demands of FAA, other government agencies, and industry for more detailed airmen statistics than those published in other FAA reports.

Statistics pertaining to airmen, both pilot and nonpilot, were obtained from the official airman certification records maintained at the FAA Aeronautical Center, Oklahoma City, Oklahoma.

An active Airmen is one who hold both an airmen certificate and a valid medical certificate. Airmen who must have a valid medical to exercise the privileges of their certificate are all airplane pilots, control tower operators, flight navigators, and lighter-than-air pilots are not required to have a medical examination but the numbers represent only those who had a valid medical certificate. Mechanics, parachute riggers, ground instructors, and dispatchers certificates represent all certificates on record at the Aeronautical Center.

This study was prepared in the Office of Management Systems, Management Standards and Statistics Division, Statistical Analysis Branch (AMS-420), by Patricia W. Carter.

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### CONTENTS

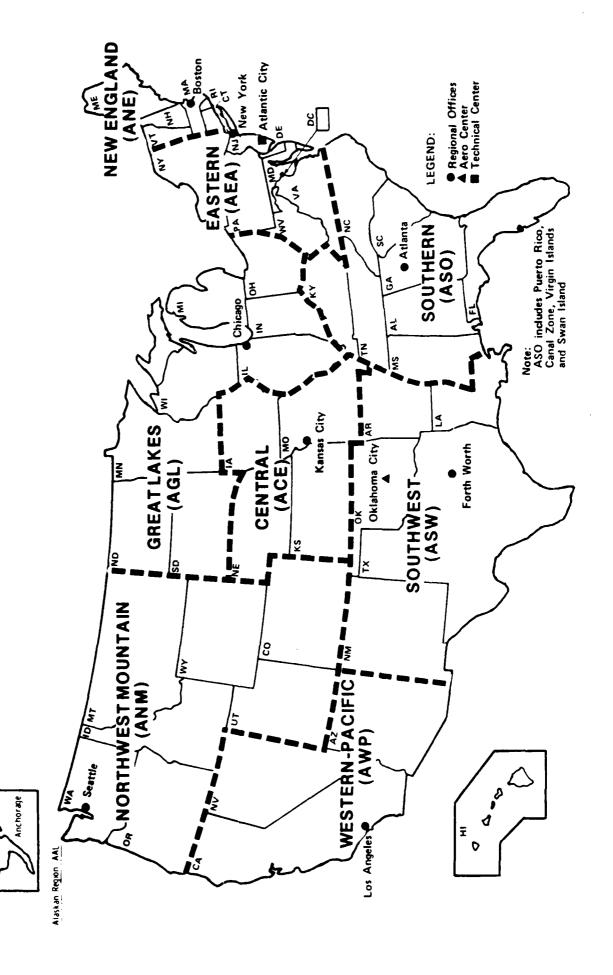
		Page
ı.	Active Pilot Certificates Held	1
II.	Active Nonpilot Certificates Held	17
III.	Pilot Certificates Issued	23
	Tables	
1.	Active Pilot Certificates Feld: December 31, 1978-1987	2
2.	Active Women Pilot Certificates Held: December 31, 1978-1987	3
3.	Active Pilot and Nonpilot Certificates Held, by Class of Certificates, and by FAA Region: December 31, 1987	4
4.	Active Pilots and Flight Instructors by FAA Region and State:  December 31, 1987	7
5.	Active Women Pilots and Flight Instructors by FAA Region and State:  December 31, 1987	9
6.	Active Helicopter Pilots by Class of Certificates: December 31, 1987	11
7.	Active Clider Pilots by Class of Certificates: December 31, 1987	12
8.	Active Helicopter and Glider Pilots: December 31, 1983-87	13
9.	Total Pilots and Instrument Rated Pilots: December 31, 1983-87	13
10.	Active Pilot Certificates Held by Category and Age Group of Holder: 1987, 1986, 1983	14
11.	Average Age of Active Pilots by Category	15
12.	Instrument Rating Held by Class of Certificates: December 31, 1987 and 1986	16
13.	Instrument Ratings Held, by Class of Certificates, by FAA Region: December 31, 1987	18
14.	Active Nonpilot Airmen Certificates Held, by FAA Region and State:  December 31, 1987	20
15.	Active Women Nonpilot Certificates Held, by FAA Region and State:	24

## CCNTENTS (Continued)

		Page
16.	Pilot Certificates Issued, by Category: December 31, 1983-87	26
17.	Pilot Certificates Issued, by Category and Conductor: December 31, 1987	27
18.	Instrument Ratings Issued: 1987, 1986, 1983	28
19.	Student Certificates Issued, by Month: December 31, 1983-87	29
	Illustration	
EAA	Pagional Roundaries	viii

# FAA REGIONAL BOUNDARIES

Includes Locations of Regional Headquarters and Centers



I. ACTIVE PILOT CERTIFICATES HELD

TABLE 1 ESTIMATED ACTIVE PILOT CERTIFICATES HELD: DECEMBER 31, 1978 - 1987

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Category	1978	1979	1980 1/	1981	1982	1983	1984	1985	1986	1987
Pilot-Total	798,833	814,667	827,071	764 , 182	733,255	718,004	722 ,376	709,540	709,118	699,653
0-1	00/ 07/	*** ***	100 000	170 010	154 841					
Student Private	204 ,874 337 ,644	210,180 343,276	199,833 357,479	179,912 328,562	156,361 322,094	147,197 318,643	1.50 ,081 320 ,086	146,652 311,086	150,273 305,736	146,016 300,949
Comercial	185.833	182,097	183,442	168,580	165,093	159,495	155,929	151.632	147,796	143,645
Airline Transport	55,881	63,652	69,569	70,311	73,471	75,938	79,192	82,740	87,186	91,287
Helicopter (only)	4.874	5,218	6,030	6.453	7.034	7,237	7,532	8,123	8,581	8,702
Glider (only) 2/	6,541	6,796	7,039	7,388	7,842	8,157	8,390	8,168	8,411	7,901
Lighter-then-air 2/	3,186	3,448	3,679	2,976	1,360	1,337	1,166	1,139	1.133	1,153
	·									
Nonpilot—Total <sup>T</sup>	336,962	351,981	368,356	382 ,840	399,661	413,199	426,802	395,139	410,079	427,962
Mechanic 3/	228,743	237,611	250,157	262,705	277 ,436	288,335	298,028	274,100	284,241	297,178
Parachute Rigger 3/	9,200	9,381	9,547	9,716	9,893	10,074	10,194	9,395	9,535	9,659
Ground Instructor 3/	57,738	59,680	61,550	63,246	65,004	66,385	67,463	58,214	59,443	60,861
Dispatcher 3/	6,161	6,446	6,799	7,094	7,580	8,223	8,980	8,511	9,025	9,491
Flight Nevigator	2,092	1,994	1,936	1,785	1,695	1,636	1,603	1,542	1,512	1,445
Flight Engineer	33,028	36,869	38,367	38,2%	38,053	38,546	40,534	43,377	46,323	49,328
Flight Instructor Certificates —	52,201	54,398	60,440	57,523	62 <sub>A</sub> 92	62,201	61,173	58,940	57 <b>,3</b> 55	60,316
Instrument Ratings 5/	236,312	247,096	260,461	252,535	255,073	254,271	256 ,584	258,559	262,388	266,122

For 1980 only, a valid medical certificate was defined as one that was issued within the last 27 months.

Glider and lighter-there is pilots are not required to have a medical examination; however, the totals above represent pilots who received a medical examination within the last 25 months.

Numbers represent all certificates on record. No medical examination required.

Not included in total.

Special ratings shown on pilot certificates, do not indicate additional certificates.

Bevised.

				TABLE 2						
	25	THATED ACTIV	E WOMEN PILO	CERTIFICA	TES HELD: D	BCENETER 1978	- 1987			
Catagory of Certificates Held	1978	1979	1980 1/	1981	1982	1983	1984	1985	1986	1987
Pilot—Total	49,874	51,733	52,902	47,721	45,305	43,648	44,339	43,483	43,022	42,578
				ļ.,						
Student	26,354	26,714	26,006	22,591	19,958	18,696	19,435	19,058	18,899	18,367
Private	19,267	20,275	21,554	19,602	19,388	18,801	18,616	17,974	17,532	17,349
Commercial	3,306	3,618	3,993	4,101	4,257	4,281	4,232	4,185	4,176	4,208
Airline Transport Helicopter (only)	270 17	361 27	480	584 87	749 113	884 144	1,032 167	1,184	1,334	1,538
Glider (only) 2/	433	461	496	540	574	599	631	653	667	627
Lighter-then-air 2/	227	277	318	216	266	243	226	233	242	242
	<del></del>	<del> </del>		<del> </del>	<del> </del>	<del> </del>	<del> </del>	<del> </del>	-	+
Nonpilot—Total <sup>r/</sup>	3,984	4,350	4,779	5,201	5,697	6,151	6,591	6,617	6,502	7,101
	3,70									1,
2/										
Mechanic 3/	600	695	890	1,051	1,298	1,493	1,649	1,775	1,964	2,237
Perschute Rigger 3/ Ground Instructor 3/	2 692	553	362	580	593	605	614	412	3 087	428
Ground Instructor = 3/ Dispatcher =	2,682 76	2,852 105	3,015 141	3,213	3,391 199	3,554 249	3,680	2,980	3,087 460	3,232 524
Flight Engineer	82	145	171	189	215	248	336	455	577	680
Flight Navigator	0	0	0	1	1	2	2	1	c	0
4/										,
Flight Instructor 4/	1,458	1,699	2,079	2,165	2,532	2,685	2,736	2,731	2,687	2,909
1/ For 1980 only, a 2/ Glider and lighter received a medica 3/ Nambers represent 4/ Not included in t 7/ Revised.	r-them-air pile l examination v all certifica	ots are not r within the la	equired to he at 25 months.	rve a medica	l examinatio	on; however,			ent pilots M	ho
				3						

TABLE 3

ESTIMATED ACTIVE PILOT AND MINISTER CONTESTANDES HELD, BY CLASS OF CERTIFICATES AND BY PAA RECTOR:

DECEMBER 31, 1967

Class of Certificate	Total 1/	Alasken	Central	Eastern	Great Lakes	Nev England	Northwest Mountain	Southern	Southwest	Western- Pacific	Outside U.S. <u>2</u> /
Total—All Pilots	699,653	10,685	35,584	91,723	116,254	<u>34,175</u>	65,664	116,661	85,537	124,484	18,886
Student Pilots—Total	146,016	1,993	6,312	21,912	24,838	8,565	13,138	24,634	16,719	24,720	3,185
Private Pilots—Total	300,949	5,013	18,187	37,768	56,665	14,413	28,745	45,591	36,131	<u>55,220</u>	3,216
Private Airplane (only) Private Airplane, Private Glider Private Airplane, Commercial	290,694 4,105	4,870 34	17,779 148	36,209 710	55,306 636	13,954 189	27,702 374	43,797 625	34,946 391	53,124 <b>953</b>	3,005 45
Clider Private Airplane, Private Gyroplane Private Airplane, Private	795 29	0	26 2	153 4	113 7	60 1	101 0	82 2	71 7	181 6	0
Helicopter Private Airplane, Private Glider,	1,316	16	60	154	165	78	152	214	180	260	37
Private Helicopter Private Airplane, Commercial	55	0	1	8	9	5	4	8	6	12	2
Helicopter Private Airplane, Private	3,904	88	171	522	424	126	399	850	527	675	122
Glider, Commercial Helicopter Private Airplane, Commercial	37	0	0	5	1	0	12	8	3	7	1
Glider, Commercial Helicopter Private Airplane, Commercial	12	1	0	3	0	0 '	1	5	0	2	C.
Cyroplane, Commercial Halicopter	2	0	٥	0	2	0	0	С	0	0	c
Commercial Pilots—Total	143,645	<u>2,586</u>	<u>7,312</u>	17,857	21 <sub>2</sub> 219	<u>5,885</u>	<u>13,225</u>	25,634	18,958	25,253	5,716
Commercial Airplane (only) Commercial Airplane, Private	121,934	2,237	6,405	14,806	18,653	5,034	11,018	20,998	16,105	21,078	5,395
Glider Commercial Airplane, Commercial	2,070	22	90	321	268	77	236	333	225	478	20
Glider Comercial Airplane, Comercial	3,777	25	146	585	515	207	442	602	420	803	32
Cyroplane, Commercial Clider	1	0	0	٥	0	0	0	0	0	1	0
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TABLE 3 (Continued)

ESTIMATED ACTIVE PILOT AND HOMPILOT CENTIFICATES HELD, BY CLASS OF CENTIFICATES AND BY FAA NEGION:
DECEMBER 31, 1967

Class of Certificate	Total 1/	Alaskan	Gentral	Eastern	Great Lakes	New England	Northwest Mountain	Southern	Southwest		Outside U.S. <u>2</u> /
Commercial Airplane, Private											
Helicopter	274	6	11	39	51	9	26	43	33	48	8
Commercial Airplane, Commercial Glider, Private Helicopter	18	0	0	4	4	1	0	1	,	6	1 1
Commercial Airplane, Commercial	16	·	٥	•	"	•		•	•	•	i '
Helicopter	14,778	284	635	1,982	1,432	517	1,416	3,521	2,094	2,648	249
Commercial Airplane, Private	•			,	'						Ì
Clider, Commercial Helicopter	152	0	3	23	25	6	เ	32	ນ	33	4
Commercial Airplane, Commercial Glider, Commercial Helicopter	587	11	20	93	60	28	65	95	61	147	,
Commercial Airplane, Commercial	767	1.	20	73		20	, ,	77	0.	144,	, '
Helicopter, Commercial Gyroplane	20	1	1	2	5	0	3	4	1	3	C
Commercial Airplane, Commercial		ĺ			ŀ	ł			j	i	}
Oyroplane	24	0	1	1	4	1	5	4	4	4	O O
Commercial Airplane, Commercial Oyroplane, Commercial Helicopter			1	l	ļ	l					ŗ
Commercial Glider	10	0	ا ه	1	1	2		1	1	4	. G
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Mirline Transport Pilots-Total	91,287	962	3,226	11,165	11,560	4,402	8,698	17,764	11,800	15,445	6 <u>,265</u>
Airline Transport Airplane (only)	89,694	927	3,192	10,890	11,421	4,297	ε,5 <del>69</del>	17,461	11,526	15,192	6,219
Airline Transport Airplane,		i		1	<u> </u>						ļ
Airline Transport Helicopter	1,593	35	34	275	139	105	129	303	274	253	46
Rotorcraft (only) Pilots-Total	8,702	<u>107</u>	365	<u>1,293</u>	<u>172</u>	419	661	2,271	1,211	1,242	361
Private Gyroplane	10	0		0	١,	١,	,	2	1	2	1
Private Helicopter	1,019	6	33	136	96	130	103	96	94	263	62
Commercial Helicopter	7,228	90	325	1,109	649	273	528	2,103	997	932	222
Commercial Helicopter, Private Glider	5	۱ ،	1 .	2		1		2	0	0	; [ 0
Commercial Helicopter, Commercial	,	۱ °	"	'	١ ،	1 1	"	<b>l</b> '	1 °	٠	"
Glider	5	0	2	0	1	0	0	0	0	2	0
Commercial Cyroplane	1	Ō	1	0	0	0	. 0	0	0	0	0

TMELE 3 (Continued) ESTIMATED ACTIVE PILOT AND NONFILOT CENTIFICATES RELD, BY CLASS OF CENTIFICATES AND BY PAA REGION: INCOMERS 31, 1987

Class of Certificate	Total 1/	Alaskan	Central	Eastern	Great Lakes	New England	Northwest Mountain	Southern	Southwest	Western- Pacific	Outside U.S. 2/
Commercial Helicopter, Commercial Gyruplane Airline Transport Helicopter	1 <b>433</b>	0 11	0	0 46	0 25	0 14	0 28	0 68	1 118	0 43	0 76
Glider (only)—Total	<u>7,901</u>	<u>16</u>	116	1,562	981	438	1,071	624	<u>548</u>	2,411	<u>134</u>
Private Glider Commercial Glider	6,734 1,167	13 3	103 13	1,317 245	849 132	359 79	830 241	551 73	463 85	2,132 279	117 17
Lighter-Than-Air	1,153	<u>8</u>	<u>66</u>	166	219	23	126	143	170	193	9
Total—All Mompilot	427,962	4,427	21,403	61,836	55,820	18,652	35,786	72,847	55,489	81,819	19,883
Mechanic 3/ Parachute Rigger 3/ Ground Instructor 3/ Dispatcher 3/ Flight Navigator Flight Engineer	297,178 9,659 60,861 9,491 1,445 49,328	3,107 149 717 142 4 308	16,607 420 3,047 145 11 1,173	44,337 1,638 8,426 1,931 232 5,272	38,060 1,219 9,635 879 41 5,986	12,782 344 2,680 244 163 2,439	22,802 1,299 5,490 471 147 5,577	48,420 1,849 10,290 1,688 241 10,359	39,362 978 8,130 662 87 6,270	58,278 1,602 10,956 1,421 418 9,144	13,423 161 1,490 1,908 101 2,800
Flight Instructor Certificates— Total 4/	60,316	<u>798</u>	3,100	8,595	10,331	2,768	5,980	10,097	7,667	10,087	<u>893</u>
Instrument Retings 5/	266,122	3,489	12,145	34,659	39,753	12,019	23,677	49,879	34,035	46,138	10,328

<sup>1/2</sup> Includes Outside U.S. total.
2 Outside U.S. includes aimmen certificated by the FAA who live outside the 50 states or foreign countries.
3/3 Total ratings issued to date. These ratings retain their validity without periodic medical examinations.
5/4 Not included in total.
5/5 Special ratings shown on pilot certificates, do not indicate additional ratings.

TABLE 4

ESTIMATED ACTIVE PILOTS AND FLIGHT INSTRUCTORS BY FAA REGION AND STATE:

DECEMBER 31, 1987

FAA Region and State	Total Pilots	Students	Private	Commercial	Airline Transport	Miscellaneous 2/	Flight Instructor 3/
Total 1/	699,653	146,016	300,949	143,645	91,287	17,756	60,316
United States—Total	680,767	142,831	297,733	137,929	85,022	<u>17,252</u>	59,423
Alaskan Region—Total	10,685	1,993	5,013	2,586	962	<u>131</u>	<u>798</u>
Central-Total	35 <b>,58</b> 4	6,312	18,187	<u>7,312</u>	3,226	<u>547</u>	3,100
Iowa	7,619	1,371	4,323	1,414	423	88	634
Kansas	9,799	1,491	5,124	2,135	905	144	871
Missouri	12 ,781	2 ,492	5,973	2,490	1,580	246	1,196
Hebraska	5,385	958	2,767	1,273	318	69	399
Eastern—Total	91,723	21,912	37,768	17,857	11,165	3,021	<u>8,595</u>
Delsare	1,643	353	674	354	232	30	19C
District of Columbia	666	156	281	137	55	37	51
Macry Land	10,037	2,266	4,417	1,948	1108	298	896
New Jersey	14,921	3,507	5,966	2,684	2,279	485	1,411
New York	25,688	6,596	10,866	4,854	2 284	1 "088	2,293
Pennsylvania	20,861	5,124	8,938	3,618	2,596	585	2,130
Virginia	15,374	3,241	5,430	3,825	2,432	446	1,405
West Virginia	2,533	669	1,196	437	179	52	219
Great Lakes—Total	116,254	24,838	<u>56,665</u>	21,219	11,560	1,972	10,331
Illinois	27,229	6,036	12,411	4,788	3,528	466	2,522
Indiana	12,479	2,766	6,237	2,327	960	189	1,145
Michigan	20,348	4,510	10,172	3,500	1,689	477	1,751
Minnesota	16,188	3,095	7,810	2,910	2,199	174	1,344
North Dakota	3,293	692	1,597	888	93	23	255
Ohio	22,565	4,940	11,029	4,170	1,947	479	2,154
South Dakota	2,582	448	1,308	622	167	37	207
Wisconsin	11,570	2,351	6,101	2,014	977	127	953
New EnglandTotal	34,175	8,565	14,413	5,885	4,402	910	2,768
Connecticut	9,204	2,133	3,511	1,579	1,747	234	750
Maine	3,917	909	1,816	809	337	46	294
Massachusetts	12,813	3,537	5,745	2,040	1,098	393	1,021
New Hampshire	4,729	1,100	1,754	853	889	133	419
Whode Island	1,671	422	762	291	150	46	123
Veximont	1,841	464	825	313	181	58	161

DALE 4 (continued) ESTIMATED ACTIVE PILOTS AND FLICHT INSTRUCTORS BY EAA REGION AND STATE: DECEMBER 31, 1987

FAA Region and State	Total Pilots	Students	Private	Commercial	Airline Transport	Miscellaneous 2/	Flight Instructor 3/
Morthwest Hountain—Total	65,664	13,138	28,745	13,225	8,698	1,858	5,980
Colorado	18,202	4 ,262	6,622	3,417	3,100	801	1,904
Idaho	4,150	660	2,076	963	355	76	366
Hontana	4,063	687	2,101	934	296	45	371
Oregon	9,801	1,758	5,215	1,989	622	217	802
Utah	5,610	1,252	2,513	982	703	160	457
Washington	21,686	4,114	9,069	4,504	3,469	530	1,906
Wyoming	2,152	405	1,149	416	153	29	174
Southern—Total	116,661	<u>24,634</u>	45,591	25,634	17,764	3,038	10,097
Alabam	9,271	1,824	3,539	2 ,360	659	889	955
Florida	45,095	8,883	17,691	10,445	7,311	765	3,871
Georgia	18,047	3,620	6,361	3,751	4,006	309	1,422
Kentucky	5,848	1,412	2,561	1,007	695	173	518
Mississippi	4,789	1,031	1,900	1,425	348	85	363
North Carolina	14,784	3,573	6,032	2,855	1,910	414	1,199
South Carolina	6,916	1,634	2,833	1,613	690	146	597
Termessee	11,911	2,657	4,674	2,178	2,145	257	1,172
Southwest-Total	85,537	16,719	36,131	18,958	11,800	1,929	7,667
Arkenses	6,266	1,370	2,817	1,584	413	82	529
Louisians	8,694	1,699	3,501	2,323	876	295	777
New Mexico	5,233	1,139	2,276	1,162	447	209	429
Oklahowa	12,004	2,508	5,927	2,504	862	183	957
Texano	53,340	10,003	21,610	11,385	9,182	1,160	4,975
Western-Pacific—Total	124,484	24,720	<u>55,220</u>	25,253	15,445	3,846	10,087
Arizone	15,445	3,194	6,661	3,209	1,849	532	1,408
California	100,102	19,662	45,541	20,043	11,916	2,940	7,870
Havaii	3,373	842	834	803	664	230	271
Mevada	5,564	1,022	2,184	1,198	1,016	144	538
Outside U.S.—Total 4	18,886	3,185	3,216	5,716	6,265	<u>504</u>	<u>893</u>
Other U.S. Areas	1,935	<u>581</u>	648	<u>336</u>	<u>331</u>	<u>39</u>	<u>o</u>
American Samoa	10	1	2	1	6	0	0
Canal Zone	2	1	0	1	. 0	0	0
Cues	102	20	22	19	40	1	0
Puerto Rico	1,493	495	506	236	223	33	o
Virgin Island	325	63	118	78	61	5	0
Webs Island	3	1	0	1	1	0	0
1/ Includes Octaide U.S.							<del></del>

<sup>1/</sup> Includes Outside U.S.
2/ Includes helicopter, glider, and lighter-them-sir.
3/ Not included in total.
4/ Outside U.S. includes Other U.S. Areas outside of the 50 states and foreign countries.

TABLE 5

ESTIMATED ACTIVE WOMEN PILOTS AND FLIGHT INSTRUCTORS BY EMA REGION AND STATE:

DECRMER 31, 1967

FAA Region and State	Total Pilots	Students	Private	Commercial	Airline Transport	Miscellansous 2/	Flight Instructor 3/
Total 1/	<u>42,578</u>	18,367	17,349	4,208	1,538	1,116	2,909
United States-Total	42,063	18,144	17,195	4,119	1,510	1,095	2,869
Alaskan Region—Total	<u>863</u>	<u>365</u>	<u>400</u>	<u>78</u>	14	6_	<u>37</u>
CentralTotal	1,906	<u>m</u>	<u>880</u>	167	<u>50</u>	<u>क</u>	112
Ious	378	149	184	35	7	3	20
Kensas	554	206	275	49	14	10	34
Missouri	710	315	298	61	24	12	43
Nebraska	264	107	123	22	5	7	15
Eastern—Total	5,796	2,621	2,168	610	186	211	428
Delaware	93	46	31	9	6	1 1	7
District of Columbia	75	29	35	6	4	1	4
Heryland	719	291	302	76	29	21	48
New Jersey	897	394	333	101	31	38	66
New York	1,570	709	572	169	40	80	125
Pennsylvania	1,391	651	514	146	38	42	99
Virginia	933	433	340	97	37	26	76
West Virginia	118	68	41	6	1	2	3
Great Lakes—Total	6,848	2,882	2,888	719	<u>235</u>	124	<u>514</u>
Illimois	1,670	693	718	167	70	22	123
Indiana	677	288	274	81	22	12	53
Michigan	1,201	520	481	123	35	42	94
Minnesota	913	361	399	98	43	12	65
North Dekota	177	66	77	33	0	1 1	14
Ohio	1,446	647	577	145	46	31	110
South Dakota	115	51	50	9	4	ı	6
Wieconsin	649	256	312	63	15	3	49
New England—Total	2,392	1,116	910	204	92	<u>70</u>	162
Commecticut	596	275	210	53	38	20	41
Heine	224	106	94	เร	8	1	16
Mesachusetts	<del>969</del>	474	366	80	24	25	55
Mew Hampshire	345	158	117	39	16	ឞ	31
Rhode Island	127	48	66	8	2	3	8
Versiont	131	55	57	9	4	6	11
		<u> </u>	<u> </u>				

ENTERANGO ACTIVE WOMEN PILOTS AND FLIGHT DISTRICTORS BY FAA REGION AND STATE: DECEMBER 31, 1987

[	· · · · ·	1					
FAA Region and State	Total Pilots	Students	Private	Commercial	Airline Transport	Miscellaneous 2/	Flight Instructor 3/
Northwest Mountain—Total	4,464	1,910	1,841	429	<u>154</u>	<u>130</u>	<u>303</u> .
Colorado	1,329	627	448	ננו	57	64	111
Idaho	257	96	122	28	5	4	18
Hontana	205	88	96	18	3	0	15
Oregon	722	277	353	60	14	18	38
Utah	287	135	108	19	14	11	15
Weshington	1,531	628	651	159	60	33	102
Wyoming	133	57	63	12	1	0	4
Southern—Total	6,249	2,905	2,299	<u>609</u>	298	<u>138</u>	418
Alabama	378	167	158	21	8	24	20
Florida	2,707	1,189	1,056	302	111	49	192
Georgia	861	430	304	68	47	12	46
Kentucky	317	158	108	27	20	4	25
Mississippi	215	102	83	22	5	3	12
North Carolina	770	369	266	70	43	22	56
South Carolina	349	183	111	35	12	8	28
Теппеляе	652	307	213	64	52	16	39
Southwest-Total	4,689	2,075	1,925	417	<u>156</u>	116	<u>302</u>
Arkansas	304	158	112	31	3	0	22
Louisiana	377	177	137	44	10	9	34
New Mexico	415	177	154	32	14	38	25
Oklahoma	724	314	319	62	21	8	51
Texas	2,869	1,249	1,203	248	108	61	170
Western-Pacific—Total	8,856	3,493	3,884	886	<u>325</u>	<u>268</u>	<u>593</u>
Arizona	1,151	443	503	117	40	48	71
California	7,068	2,778	3,158	702	255	195	477
Hameii	245	112	70	29	18	16	19
Nevada	372	160	153	38	12	9	26
Outside U.S.—Total 4/	<u>515</u>	223	<u>154</u>	<u>89</u>	<u>28</u>	<u>21</u>	<u>40</u>
Other U.S. Areas	<u>69</u>	<u>35</u>	<u>19</u>	<u>2</u>	<u>5</u>	<u>3</u>	<u>o</u>
Cum	7	5	1	1	0	0	0
Puerto Rico	39	22	9	3	3	2	0
Virgin Island	23	8	9	3	2	1	0
1/ Includes Outside U.S.	l	<u> </u>	L	l	L		

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<sup>1/</sup> Includes Outside U.S.
2/ Includes helicopter, glider, and lighter-them-air.
3/ Not included in total.
4/ Other U.S. Areas are included in Outside U.S. Total.

TABLE 6
ESTIMATED ACTIVE HELICOPTER PILOTS BY CLASS OF CERTIFICATES
DECEMBER 31, 1987

Class of Certificates	Number of Certificates Held
Total	31,513
Private Helicopter	1,019
Private Gyroplane, Private Airplane	29
Private Helicopter, Private Airplane	1,316
Private Helicopter, Private Airplane, Private Glider	55
Private Airplane, Commercial Gyroplane, Commercial Helicopter	2
Private Airplane, Private Glider, Commercial Helicopter	37
Private Gyroplane	10
Private Airplane, Commercial Glider, Commercial Helicopter	12
Commercial Helicopter	7,228
Commercial Helicopter, Private Airplane	3,904
Commercial Airplane, Commercial Helicopter	14,778
Commercial Airplane, Private Helicopter	274
Commercial Airplane, Private Glider, Commercial Helicopter	152
Commercial Airplane, Commercial Glider, Commercial Helicopter	587
Commercial Helicopter, Private Glider	5
Commercial Helicopter, Commercial Glider	5
Commercial Gyroplane, Commercial Airplane	24
Commercial Airplane, Commercial Gyroplane, Commercial Glider	1
Commercial Airplane, Commercial Gyroplane, Commercial Helicopter	20
Commercial Airplane, Commercial Gyroplane, Commercial Helicopter Commercial Glider	10
Commercial Helicopter, Commercial Gyroplane	1
Commercial Airplane, Commercial Glider, Private Helicopter	18
Airline Transport Helicopter	433
Airline Transport Airplane, Airline Transport Helicopter	1,593

Commercial Airplane, Commercial Glider, Commercial Helicopter Commercial Helicopter, Commercial Glider Commercial Airplane, Commercial Gyroplane, Commercial Glider, Commercial Helicopter Commercial Airplane, Commercial Gyroplane, Commercial Glider	Commercial Glider Commercial Airplane, Commercial Glider Commercial Airplane, Commercial Glider, Private Helicopter Commercial Airplane, Commercial Glider, Commercial Helicopter	Private Glider, Commercial Airplane, Commercial Helicopter Private Glider, Commercial Helicopter	Private Airplane, Private Glider, Commercial Helicopter Private Airplane, Commercial Glider, Commercial Helicopter Private Glider, Commercial Airplane	Private Airplane, Private Glider  Private Airplane, Commercial Glider  Private Airplane, Private Glider, Private Helicopter	Total Private Glider	Class of Certificates	TABLE 7 BETTHANKO ACTIVE GLINER PILOES BY CLASS OF CERTIFICATIONS BY CLASS OF CERTIFICATIONS 31, 1987
587 5 10 1	1,167 3,777 18	152	37 12 2,070	4,105 795 55	19,530 6,734	Number of Certificates Held	<b>T</b> ES

TABLE 8 ESTIMATED ACTIVE HELICOPTER AND GLIDER PILOTS DECEMBER 31, 1963-67

		Helicopter lots 1/		Glider ots 2/
Calendar Year	Number	Percent Change	Number	Percent Change
1987	31,513	-1	19,530	
1986	31,697	+2	20,355	
1985	31,206	+2	20,308	-2
1984	30,507	+1	20,733	+2
1983	30,090	+1	20,395	+3

 $<sup>\</sup>underline{1}/$  Includes pilots with ratings to fly helicopters only.  $\underline{2}/$  Includes pilots with ratings to fly gliders only.

TABLE 9 ESTIMATED TOTAL PILOTS AND INSTRUMENT RATED PILOTS DECEMBER 31, 1983-87

		Instrument	Rated Pilots
Calendar Year	Total Pilots 1/	Number	Percent of Total
1987	553,637	266,122	48
1986	558,845	262 ,388	47
1985	562 ,888	258,559	46
1984	572 ,295	256,584	45
1983	570,807	254,271	45

<sup>1/</sup> Excludes student pilots.

TABLE 10
ESTIMATED ACTIVE PILOT CERTIFICATES HELD
BY CATEGORY AND ACE GROUP OF HOLDER
1987, 1986, 1983

					Ty	pe of Pil	ot Certif	icates							
Age Group	Tota	l Active Pi	lots	-	Student		Private				Comercia	1	Air	line Tran	sport
	1987	1986	1983	1987	1986	1983	1987	1986	1983	1987	1986	1983	1987	1986	1983
Total	699,653	709,118	718,004	146,016	150,273	147,197	300,949	305,736	318,643	143,645	147,798	159,495	91,287	87,186	75,934
14-15	264	252	280	264	252	280	0	0	0	0	0	o	0	0	' (
16-19	19,752	18,135	19,595	15,542	14,652	14,188	3,854	3,222	4,959	215	114	267	0	C	· ; (
20-24	56,575	58,029	70,679	26,443	27,477	29,759	20,522	21,096	28,039	7,791	7,600	10,806	453	413	62
25-29	86,336	89,246	97,060	27,617	28,885	29,019	32,058	33,569	40,229	16,999	17,226	18,640	6,436	6,308	6,030
30-34	99,311	102,263	104,166	23,762	25,086	24,195	42,746	44,654	46,459	16,497	16,769	18,585	13,117	12,438	11,57
35-39	99,686	105,580	107,927	18,413	19,531	18,089	44,903	46,367	45,670	17,514	20,169	26,219	15,614	15,933	14,62
40-44	97,082	96,586	89,756	13,437	13,606	11.857	41,570	41,428	39,859	22,637	23,661	23,913	16,792	15,437	12,49
45-49	75,194	73,040	71 234	8,251	8,234	7.819	33,189	32,152	32,483	18,146	18,000	18,684	14,342	13,409	11,22
50-54	57,844	59,077	61,035	5,214	5,438	5,718	26,151	27,064	30,941	14,349	14,947	15,065	11,335	10,819	8,479
55-59	47,529	46,211	46,738	3,621	3,685	3,541	24,862	26,539	26,481	11,140	10.816	10.825	7.184	6,398	5,17
60 and over	60,060	58,699	49,534	3,452	3,A27	2,732	31,094	29,645	23,523	18,357	18,496	16,491	6,014	6,031	5,704
Nge Group	He	licopter ((	nly)	Gli	der (Only	pe of Pile 	Ligi		-air <u>1</u> /	Fligh	t Instruc	tor <u>2</u> /			
	1987	1986	1983	1967	1986	1983	1987	1986	1983	1987	1986	1983			
Total	8,702	8,581	7,237	7,901	8,411	8,157	1,153	1,133	1,337	60,316	57,355	62,201			
14-15	٥	0			. 0	0	0	0	0	0	0	0			
16-19	10	23	11	118	105	152	13	18	18	91	48	108			
20-24	891	889	811	428	518	551	47	37	91	4,349	4,033	5,533			
25-29	2,416	2,379	1,891	678	741	1,043	132	138	200	7,927	7,700	9,511			
30-34	1,709	1,672	1,633	1,237	1,397	1,373	243	247	344	8,518	8,301	9,612			
35 <del>-39</del>	1,575	1,779	1,732	1,363	1,495	1,260	304	306	329	8,734	8,978	10,642			
40-44	1,322	1,118	648	1,112	1,137	833	212	199	152	9,343	8,633	8,081			
	441	418	296	732	737	647	93	90	84	6,895	6,275	6,221			
45-49			125	549	582	632	48	54	75	5,195	4,984	4,831			
45-49 50-54	198	173	1 12	, , , , , , , , , , , , , , , , , , ,	, ~~	-	,	. ~	,						
	198	81	63	596	665	632	40	27	21	3,966	3,469 4,934	3,272			

Clider and lighter-than-air pilots are not required to have a medical examination; however, totals above represent pilots who received a medical examination.

 $<sup>\</sup>frac{2}{}$  Not included in total active pilots.

TABLE 11

AVERAGE AGE OF ACTIVE PILOTS BY CATEGORY

YEAR	TOTAL <sup>1</sup> /	STUDENT	PRIVATE	COMMERCIAL.	AIRLINE TRANSPORT
1978	37.1	30.5	38.6	39.9	42.6
1979	37.2	30.5	38.7	40.2	42.1
1980	37.5	30.5	39.0	40.4	41.9
1981	37.8	30.7	39.3	40.7	42.0
1982	38.3	31.2	39.5	41.0	42.3
1963	38.8	31.7	40.0	41.5	42.5
1984	39.2	32.1	40,4	42.0	42.7
1965	39.5	32.4	40.8	42.4	42.8
1986	39.7	32.2	41.1	42.6	43.0
1987	39.9	32.3	41,4	42.7	43.1
			<u> </u>		

 $<sup>\</sup>frac{1}{2}$  Includes helicopter (only), glider (only) and lighter than air (only) pilots not shown separately.

TABLE 12
ESTIMATED INSTRUMENT BATTING HELD BY CLASS OF CERTIFICATES
DECEMBER 31, 1987 AND 1986

Class of Certificates	1987	1986	Percent Change 1987-1986
Total—all groups	266,122	262,388	<u>1</u>
Private Pilots—Total	47,746	45,672	5
Private Airplane (only)	43,885	41,947	<u>5</u> 5
Private Airplane, Private Glider	983	955	3
Private Airplane, Commercial Glider	102	95	7
Private Airplane, Private Helicopter	332	318	4
Private Airplane, Private Glider, Private Helicopter	25	20	-25
Private Airplane, Commerical Helicopter	2,385	2,302	4
Private Airplane, Private Cyroplane	3	2	50
Private Airplane, Private Glider, Commercial Helicopter	21	20	5
Private Airpiane, Commercial Glider, Commercial Helicopter	9	12	25
Private Airplane, Other	1	1	0
Commerical Pilots—Total	121,072	123,559	<u>-2</u>
Commercial Airplane (only)	102,017	103,913	<b>-</b> 2
Commercial Airplane, Private Glider	1,756	1,825	-4
Commercial Airplane, Commercial Glider	3,098	3,227	-4
Commercial Airplane, Private Helicopter	234	224	4
Commercial Airplane, Commercial Helicopter	13,250	13,624	-3
Commercial Airplane, Private Glider, Commercial Helicopter	134	143	6
Commercial Airplane, Commercial Glider, Commercial Helicopter	526	549	-4
Commercial Airplane, Commercial Gyroplane	15	13	15
Commercial Airplane, Commercial Helicopter, Commercial Gyroplane	15	16	-6
Commercial Airplane, Commercial Gyroplane, Commercial Glider	1	1	0
Commercial Airplane, Commercial Glider, Private Helicopter	16	15	7
Commercial Airplane, Commercial Cyroplane, Commercial Helicopter Commercial Glider	10	9	11
Airline Transport Pilots—Total	91,287	87,186	<u>5</u>
Airline Transport Airplane	89,694	85,714	5
Airline Transport Airplane, Airline Transport Helicopter	1,593	1,472	٤
Rotorcraft Pilots—Total	<u>6,017</u>	5,971	1
Commercial Helicopter	5,927	5,873	1
Airline Transport Helicopter	81	89	9
Rotorcraft Other	9	g	ó

II. ACTIVE NONPILOT CERTIFICATES HELD

TABLE 13
INSTRUMENT BATTHES HELD, BY CLASS OF CENTURICATES, BY PAA SECTION: INCOMER 31, 1987

Class of Certificate	Total 1/	Alaskan	Central	Eastern	Great Lakes	New England	Northwest Mountain	Southern	Southwest	Western Pacific	Outside U.S.2/
Total—all groups	266,122	3,A89	12,145	34,659	39,753	12,019	23,677	49,879	34,035	46,138	10,328
Private Pilota—Total	47,746	336	2,607	6,710	9,348	2,330	3 <u>,599</u>	7,998	5,591	8,929	298
Private Airplane (only)	43,865	279	2,425	6,126	8.876	2,164	3.276	7,109	5.086	8,269	275
Private Airplane, Private Glider	983	6	32	172	159	60	61	153	91	240	و ا
Private Airplane, Commercial Glider	102	l o	3	18	13	14	13	8	10	23	ه ا
Private Airplane, Private Helicopter	332	1	17	43	44	13	30	64	52	67	i i
Private Airplane, Private Glider	[	[				-			~	"	1
Private Helicopter	25	0	0	5	3	2	3	2	] 3	7	
Private Airplane, Commercial	İ		i	•		i	ļ		ł		İ
Helicopter	2,385	49	129	342	250	77	208	652	346	319	13
Private Airplane, Private Cyroplane	3	0	1	. 0	1	0	0	0	0	1	l c
Private Airplane, Private Glider	!	i	l :			1		ľ	i		1
Commercial Helicopter	21	0	0	2	1	0	( 7	6	3	2	. 0
Private Airplane, Commercial Glider		i	i	}	l	İ	İ	1		İ	ĺ
Commercial Helicopter	9	1	0	2	0	0	1	4	0	1	c
Private Airplane, Other	1	0	0	0	1	0	0	0	0	0	0
Commercial Pilota-Total	121,072	2,109	6,025	15,829	18,281	5,075	10,947	22,223	15,806	21,081	3,696
Commercial Airplane (only)	102.017	1.813	5,223	13.075	16,204	4.312	9,098	18.039	13.326	17,503	3.424
Commercial Airplane, Private Glider	1,756	19	74	270	234	69	189	288	186	409	18
Commercial Airplane, Commercial	-,,,,		.~			) "	1 207		1	~ ~ /	
Glider	3.098	20	126	472	436	178	367	486	342	645	26
Commercial Airplane, Private	3,02	]	""	7/2	-30	[	367	1 ***	342	, <del>~</del> ,	1 -0
Helicopter	234	3	10	33	46	a	2c	39	28	39	l e
Commercial Airplane, Commercial	1	i		) "	1	l "	1 -~	) "	1 -0	''	J
Helicopter	13,250	243	569	1.868	1.273	474	1,198	3.254	1.854	2.309	208
Commercial Airplane, Private Glider		1				1 7/7	1,-~	1	.,	1	~~  ا
Commercial Helicopter	134	0	3	22	21	6	12	28	10	28	4
Commercial Airplane, Commercial	l	] ~		_	·	1	I –	l		-~	
Clider, Commercial Helicopter	526	10	19	84	54	26	55	86	55	130	١,

Bond "Second Contact Topopoli December Contact

TABLE 13 (Continued)

ESTIMATED INSTRUMENT RATINGS HELD, BY CLASS OF CENTIFICATES, BY PAA REGION: DECRMER 31, 1987

Class of Certificate	1/ Total	Alaskan	Central	Eastern	Great Lakes	New England	Northwest Mountain	Southern	Southwest	Western Pacific	Outside U.S. 2/
Commercial Airplane, Commercial Gyroplane Commercial Airplane, Commercial	15	0	0	1	2	1	4	1	2	4	0
Helicopter, Commercial Cyroplane Commercial Airplane, Commercial	ឋ	1	1	0	5	0	3	1	ı	3	0
Gyroplane, Commercial Glider Commercial Airplane, Commercial	1	0	0	0	0	0	0	0	0	1	0
Glider, Private Helicopter Commercial Airplane, Commercial Oyroplane, Commercial Helicopter	16	0	0	3	4	1	0	0	1	6	1
Commercial Glider	10	0	0	1	2	0	1	1	1	4	0
Airline Transport Pilots—Total	91,287	<u>962</u>	3,226	11,165	11,560	4,402	8,698	17,764	11,800	15,445	6,265
Airline Transport Airplane	89,694	927	3,192	10,890	11,421	4,297	8,569	17,461	11,526	15,192	6,219
Airline Transport Airplane, Airline Transport Helicopter	1,593	35	34	275	139	105	129	303	274	253	46
Rotorcraft Pilots-Total	6,017	<u>82</u>	<u>287</u>	<u>955</u>	<u>564</u>	212	433	1,894	<u>838</u>	683	69
Commercial Helicopter Airline Transport Helicopter Other	5,927 81 9	80 2 0	284 1 2	945 9 1	552 12 0	207 4 1	429 4 0	1,877 15 2	816 21 1	674 7 2	63 6 0

<sup>1/</sup> Includes Outside U.S. total.

<sup>2</sup>/ Outside U.S. includes airmen certificated by FAA who live outside the 50 states or foreign countries.

Table 14 estimated active nonvilot alinem certificates held, by Paa negion and state: increases 31, 1967  $\underline{\mathcal{Y}}$ 

FAA Region and State   Nompilot   Nechmic   Rigger   Instructor   Dispatcher   Flight   Revigator   Region   Instructor   Dispatcher   Flight   Revigator   Region   Instructor		Total	7				<del> </del>	
United States—Total 408,079 283,755 9,498 39,371 7,583 1,324 46,5  Alaskan Region—Total 4,27 3,107 149 717 142 4 46,5  Central—Total 7,891 1,981 85 317 9 1 1 1 1,1  Lona 1,891 1,299 67 335 3 5 6  Raneas 5,993 4,630 108 907 38 3 3 3 3 6  Kiascori 10,937 8,697 160 1,288 95 3 6  Remass 1,1789 1,299 67 335 3 5 5 6  Eastern—Total 61,836 44,337 1,688 6,426 1,931 222 5,2  District of Columbia 338 201 19 82 17 0 182 17 0 182 17 0 182 17 0 182 17 0 182 182 182 182 182 182 182 182 182 182	FAA Region and State	Monpilot	Mechanic			Dispatcher		Flight Engineer
Alaskam Regicor—Total  A_A27  Alaskam Regicor—Total  A_A27  Alaskam Regicor—Total  A_A27  Alaskam Regicor—Total  A_A27  Alaskam Regicor—Total  A_A27  Alaskam Regicor—Total  A_A28  Alaskam Regicor—Total  A_A28  Alaskam Regicor—Total  A_A29  A_A29  Alaskam Regicor—Total  A_A29  A_A29  Alaskam Regicor—Total  A_A29  A_A29  A_A29  Alaskam Regicor—Total  A_A29  A_A20	Total <u>2</u> /	427,962	297,178	9,659	60,861	9,491	1,445	49,328
Central Total   21,403   16,607   85   517   9   0	United States-Total	408,079	283,755	9,498	<u>59,371</u>	<u>7,583</u>	1,344	46,528
Loss	Alaskan Region-Total	4,427	3,107	149	<u>717</u>	142	4	<u>308</u>
Nissouri   10,937   8,697   160   1,288   95   3   6		21,403 2,684			3,047 517	<u>145</u>		1,173
Nebraska	Kenses	5,993	4,630	108	907	38	3	307
Easterny-Total	Kissouri	10,937	8,697	160	1,288	95	3	694
Delaware	Nebraska	1,789	1,299	67	335	3	5	80
Delaware	Eastern—Total	61,836	44,337	1,638	8,426	1,931	232	5,272
Maryland	Delaware				· —		—	101
New York	District of Columbia	338	201	19	82	17	0	19
New York	Maxyland	3,959	2,449	138	779	51	14	528
Pernsylvania	New Jersey	11,015	7,554	236	1,352	394	66	1,413
Virginia         6,370         3,423         422         1,267         140         32         1,0           West Virginia         930         623         47         211         4         0         0           Creat Lakes—Total         55,820         38,060         1,219         9,635         879         41         5,9           Illinois         15,558         10,099         281         2,491         304         13         2,3           Indiana         5,451         3,887         188         941         56         5         3           Hichigam         9,046         6,339         181         1,818         92         7         6           Himmesota         9,585         6,401         137         1,224         278         4         1,5           North Dakota         852         650         25         142         2         0         0           Chio         10,268         7,309         258         1,967         97         5         6           South Dakota         886         617         21         196         3         1         3           Wisconsiin         4,174         2,782         344 </td <td>New York</td> <td>24,099</td> <td>18,923</td> <td>388</td> <td>2,598</td> <td>1,077</td> <td>70</td> <td>1,043</td>	New York	24,099	18,923	388	2,598	1,077	70	1,043
West Virginia	Pennsylvania	14,096	10,425	362	1,991	236	45	1,037
Creat Lakes—Total         55,820         38,060         1,219         9,635         879         41         5,9           Illinois         15,558         10,099         281         2,491         304         13         2,3           Indiana         5,451         3,887         188         941         56         5         3           Michigam         9,046         6,339         181         1,818         92         7         6           Minneacts         9,585         6,401         137         1,224         278         4         1,5           North Dakota         852         650         25         142         2         0         0           Chio         10,268         7,309         258         1,967         97         5         6           South Dakota         886         617         21         196         3         1         1           Wisconsin         4,174         2,758         128         856         47         6         3           New England—Total         18,652         12,762         344         2,680         244         163         2,44           Commacticut         5,645         3,604	Virginia	6,370	3,423	422	1,267	140	32	1,086
Illinois	West Virginia	930	623	47	211	4	0	45
Indiana	Great Lakes—Total	55,820	38,060	1,219	9,635	879	41	5,986
Michigan         9,046         6,339         181         1,818         92         7         6           Minneacta         9,585         6,401         137         1,224         278         4         1,5           North Dakota         852         650         25         142         2         0         0           Chio         10,268         7,309         258         1,967         97         5         6           South Dakota         886         617         21         196         3         1         1           Wisconsin         4,174         2,758         128         856         47         6         3           New England—Total         18,652         12,782         344         2,680         244         163         2,44           Commetticut         5,645         3,604         81         759         76         109         1,0           Maine         1,328         869         41         242         28         8         1           Messachusetts         8,296         6,464         163         1,046         87         14         5           New Hampehire         1,970         918         31	Illinois	15,558	10,099	281	2,491	304	13	2,370
Hinnesota   9,585   6,401   137   1,224   278   4   1,5	Indiana	5,451	3,887	188	941	56	5	374
North Dakota	Michigan	9,046	6,339	181	1,818	92	7	609
Ohio         10,268         7,309         258         1,967         97         5         6           South Dakota         886         617         21         196         3         1           Wisconsin         4,174         2,758         128         856         47         6         3           New England—Total         18,652         12,782         344         2,680         244         163         2,4           Connecticut         5,645         3,604         81         759         76         109         1,0           Maine         1,328         869         41         242         28         8         1           New Hampshire         1,970         918         31         353         29         24         6           Wermont         614         380         10         129         15         6           Northwest-Mountain—Total         35,786         22,802         1,299         5,490         471         147         5,5           Lohno         10,956         6,578         168         1,748         186         29         2,2           Lohno         1,594         1,042         157         294	Minnesota	9,585	6,401	137	1,224	278	4	1,541
South Dakota         886         617         21         196         3         1           Wisconsin         4,174         2,758         128         856         47         6         3           New England—Total         18,652         12,782         344         2,680         244         163         2,44           Commeticut         5,645         3,604         81         759         76         109         1,0           Maine         1,328         869         41         242         28         8         1           Heasachusetts         8,296         6,464         163         1,046         87         14         5           New Hampshire         1,970         918         31         353         29         24         6           Wermont         614         380         10         129         15         6           Morthwest-Mountain—Total         35,786         22,802         1,299         5,490         471         147         5,5           Colorado         10,956         6,578         168         1,748         186         29         2,2           Idaho         1,594         1,042         157         294 </td <td>North Dakota</td> <td>852</td> <td>650</td> <td>25</td> <td>142</td> <td>2</td> <td>0</td> <td>33</td>	North Dakota	852	650	25	142	2	0	33
Wisconsin         4,174         2,758         128         856         47         6         3           New England—Total         18,652         12,782         344         2,680         244         163         2,44           Commeticust         5,645         3,604         81         759         76         109         1,00           Maine         1,328         869         41         242         28         8         1           New Hampshire         8,296         6,464         163         1,046         87         14         5           New Hampshire         1,970         918         31         353         29         24         6           Wermont         614         380         10         129         15         6           Rorthwest-Hountain—Total         35,786         22,802         1,299         5,490         471         147         5,5           Colorado         10,956         6,578         168         1,748         186         29         2,24           Idaho         1,915         1,175         276         364         3         4         4           Oragon         3,936         2,772         233 </td <td>Ohio</td> <td>10,268</td> <td>7,309</td> <td>258</td> <td>1,967</td> <td>97</td> <td>5</td> <td>632</td>	Ohio	10,268	7,309	258	1,967	97	5	632
New England—Total   18,652   12,782   344   2,680   244   163   2,44	South Dakota	886	617	21	196	3	1	48
Commeticut         5,645         3,604         81         759         76         109         1,00           Maine         1,328         869         41         242         28         8         1           Messachusetts         8,296         6,464         163         1,046         87         14         5           New Hampshire         1,970         918         31         353         29         24         6           Whode Island         799         547         18         151         9         2         2         6           Wermont         614         380         10         129         15         6         6           Rorthwest-Hountain—Total         35,786         22,802         1,299         5,490         471         147         5,5           Colorado         10,956         6,578         168         1,748         186         29         2,22           Idaho         1,594         1,042         157         294         6         4         4           Montana         1,915         1,175         276         364         3         4         5           Oragon         3,936         2,772	Wisconsin	4,174	2,758	128	856	47	6	379
Maine         1,328         869         41         242         28         8         1           New Hampshire         1,970         918         31         353         29         24         6           Whode Island         799         547         18         151         9         2           Vermont         614         380         10         129         15         6           Rorthwest-Mountain—Total         35,786         22,802         1,299         5,490         471         147         5,5           Colorado         10,956         6,578         168         1,748         186         29         2,22           Idaho         1,594         1,042         157         294         6         4           Montana         1,915         1,175         276         364         3         4           Oragon         3,936         2,772         233         644         36         27         2           Utah         2,632         1,694         78         396         13         4         4	New England-Total	18,652	12,782	<u>344</u>	2,680	244	<u> 163</u>	2,439
Measachusetts	Connecticut	5,645	3,604	81	759	76	109	1,016
New Hampshire	Maine	1,328	869	41	242	28	8	140
Rock   Island   799   547   18   151   9   2	Hessachusetts	8,296	6,464	163	1,046	87	14	522
Vermont         614         380         10         129         15         6           Rorthwest-Hountain—Total         35,786         22,802         1,299         5,490         471         147         5,5           Colorado         10,956         6,578         168         1,748         186         29         2,20           Idsho         1,594         1,042         157         294         6         4           Montana         1,915         1,175         276         364         3         4           Oragon         3,936         2,772         233         644         36         27         2           Utsh         2,632         1,694         78         396         13         4         4	New Hampshire	1,970	918	31	353	29	24	615
Northwest-Mountain—Total         35,786         22,802         1,299         5,490         471         147         5,5           Colorado         10,956         6,578         168         1,748         186         29         2,22           Idsho         1,954         1,042         157         294         6         4           Montane         1,915         1,175         276         364         3         4           Oragon         3,936         2,772         233         644         36         27         2           Utah         2,632         1,694         78         396         13         4         4	Whode Island	799	547	18	151	9	2	72
Colorado         10,956         6,578         168         1,748         186         29         2,22           Idaho         1,594         1,042         157         294         6         4           Montana         1,915         1,175         276         364         3         4           Oragon         3,936         2,772         233         644         36         27         2           Utah         2,632         1,694         78         396         13         4         44	Vexmont	614	380	10	129	ឞ	6	74
Ideho         1,594         1,042         157         294         6         4           Montane         1,915         1,175         276         364         3         4           Oregon         3,936         2,772         233         644         36         27         2           Utah         2,632         1,694         78         396         13         4         4	Northwest-Hountain-Total	35,786	22,802	1,299	5,490	<u>471</u>	147	5,577
Montane         1,915         1,175         276         364         3         4         6           Oregon         3,936         2,772         233         644         36         27         2           Utah         2,632         1,694         78         396         13         4         44	Colorado	10,956	6,578	168	1,748	186	29	2,247
Oragon         3,936         2,772         233         644         36         27         2.           Utah         2,632         1,694         78         396         13         4         44	Ideho	1,594	1,042	157	294	6	4	91
Utah 2,632 1,694 78 396 13 4 4	Hontana	1,915	1,175	276	364	3	4	93
1 242 1 27 1 27 1 27 1 27 1 27 1 27 1 27	Oregon	3,936	2,772	233	644	36	27	224
Mashington	Utah	2,632	1,694	78	396			447
1 -1	Weshington	13,822	8,863	355	1,888	ſ		2 ,424
Wyoming 931 678 32 156 11 3	Wyoming	931	678	32	156	11	3	51

TABLE 14 (Continued) ESTIMATED ACTIVE HUMPILOT AIRMSN CHAITPICATES BELD, BY FAA REGION AND STATE: DECRMER 31, 1967  $\frac{1}{2}$ 

FAA Region and State	Total Mompilot Airmen	Mechanic	Parachute Rigger	Ground Instructor	Dispatcher	Flight Nevigator	Flight Engineer
Southern—Total	72,847	48,420	1,849	10,290	1,688	<u>241</u>	10,359
Alabama	5,507	4,336	133	853	10	7	168
Georgia	14,965	9,485	281	1,483	291	13	3,412
Florida	34,036	23,437	542	4,611	1,027	188	4,231
Kentucky	2,430	1,518	159	438	45	0	270
Mississippi	1,624	1,125	42	346	7	3	101
North Carolina	6,334	3,812	431	1,090	138	17	846
South Carolina	2,365	1,456	94	489	17	5	304
Termessee	5,586	3,251	167	980	153	8	1,027
Southwest—Total	<u>55,489</u>	39,362	978	8,130	662	<u>87</u>	6,270
Arkanses	2,242	1,570	71	438	15	2	146
Louisiana	4,539	3,365	92	679	37	5	361
New Mexico	2,008	1,342	65	461	21	3	116
Oklahoma	12,415	10,558	163	1,334	29	9	322
Texas	285, 34	22,527	587	5,218	560	68	5,325
Western-Pacific-Total	81,819	58,278	1,602	10,956	1,421	418	9,144
Arizona	8,283	5,832	188	1,371	211	22	659
California	68,133	48,974	1,304	8,729	1,043	331	7,752
Hawaii	2,778	1,999	56	340	126	11	246
Nevada	2,625	1,473	54	516	41	54	487
Outside U.S.—Total 3/	19,883	13,423	161	1,490	1,908	101	2,800
Other U.S. Areas—Total	<u>1,516</u>	1,141	34	192	<u>59</u>	<u>o</u>	90
American Samos	9	5	0	3	0	0	1
Camal Zone	39	16	18	3	2	0	0
Quan	147	79	3	22	7	0	36
Puerto Rico	1,169	929	11	139	47	0	43
Wake Island	9	9	0	0	0	0	0
Virgin Island	143	103	2	25	3	0	10

Data for flight engineers and flight navigators represent total active ratings held. Data for dispatchers, mechanics, parachute riggers and ground instructors represent total ratings issued to date. These ratings retain their validity.

<sup>2/</sup> Includes Outside U.S.

 $<sup>2^{\</sup>prime}$  Outside U.S. includes Other U.S. Areas outside the  $5\!\!\!/$  states and foreign countries.

111. PILOT CERTIFICATES ISSUED

FAA Region and State	Total Nonpilot Women	Mechanic	Parachute Rigger	Ground Instructor	Dispatcher	Flight Engineer
Total 2/	7,101	2,237	428	3,232	<u>524</u>	<u>680</u>
United States—Total	7 <u>,007</u>	2,224	423	3,182	<u>504</u>	<u>674</u>
Alaskan Region—Total	120	26	11	47	28	8
Central—Total	301 70	132 36	17	141 31	<u>6</u> 2	50
Kansas	96	46	6	43	0	1
Missouri	110	46	7	49	4	4
Nebraska	25	4	3	18	0	0
Eastern-Total	<u>911</u>	<u>205</u>	82	417	<u>130</u>	<u>77</u>
Delaware	20	9	1	8	1	1
District of Columbia	10	0	1	6	1	2
Maryland	92	15	4	49	6	18
New Jersey	125	30	7	47	26	ıs
New York	318	81	14	137	69	17
Pennsylvania	191	39	23	97	20	12
West Virginia	20	15	0	4	1	0
Virginia	135	16	32	69	6	12
Great Lakes—Total	1,173	<u>386</u>	<u>59</u>	<u>550</u>	<u>"</u>	107
Illinois	331	104	] 14	150	21	42
Indiane	116	20	19	52	8	17
Michigan	203	56	6	115	9	17
Mirmesota	144	52	5	46	21	20
North Dekota	10	2	0	6	1	1
Ohio	269	131	11	115	6	6
South Dakota	ឞ	2	0	13	0	С
Wisconsin	85	19	4	53	5	4
New England—Total	<u>317</u>	101	12	156	<u>15</u>	33
Connecticut	114	42	4	42	8	18
Maine	24	4	1	16	2	1
Messachusetts	116	36	5	62	4	9
New Hampshire	41	15	1	20	1	4
Rhode Island	11	2	0	8	0	1
Vermont	11	2	1	8	0	0
Northwest-Hountain-Total	680	230	<u>28</u>	300	28	94
Colorado	226	73	1	92	12	48
Idaho	28	8	2	17	1	0
Montana	30	5	4	20	0	1
Oregon	72	15	9	46	0	2
Utah	48	ເນ	6	21	1	7
			L			
Mashington	258	111	4	95 9	12	36 C

TABLE 15 (Continued) estimated active when respilot certificates seld, by faa secies and state: december 31, 1987  $\underline{\mathcal{Y}}$ 

ACTIVE WORDS		(Continued)			
	ROPILOT CERT	Tricates held,	, by faa megion a	NO STATE:	
Total Nonpilot	DECEMBER Mechanic	31, 1987 1/ Parachute	Ground	Di matcher	Flight
Nomen .		Rigger	Instructor		Engineer
1,235	306	117	558	<u>104</u>	<u>150</u>
126	30	6	86	1	3
141	40	7	55	·	27
	1	<b>,</b>	1		54
1	1	1		· ·	9
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<sup>1/</sup> Data for flight engineers and flight navigators represent total active ratings held. Data for dispatchers, each mics, parachute riggers, and ground instructors represent total ratings is sued to date. These ratings retain their validity.

<sup>2/</sup> Includes Outside U.S.

<sup>3/</sup> Outside U.S. includes Other U.S. Areas outside of the 50 states and foreign countries.

TABLE 16 PILOT CERTIFICATES ISSUED, BY CATEGORY: CALENDAR YEARS 1983-1987

	1983		1984		1985		1986		1987	
Category of Certificates	Original	Additional	Original	Additional	Original	Additional	Original	Additional	Original	Additional
Pilot—Total	150,419	30,898	141,763	30,469	138,589	28,420	141,625	32 ,628	148,987	39,990
Student	92 .239	0	90,085	0	86,060	0	88,699	0	84,958 (P)	0
Private	41,210	12,721	36,545	11,784	35,402	11,686	34,816	12,672	42,278	16,302
Commercial	8,789	9,513	7,702	8,892	8,404	7,197	8,889	9,241	11,314	11,365
Airline Transport	5,643	8,187	5,099	9,335	6,081	9,192	6,498	10,372	7,678	11,956
Helicopter (only)	1,932	315	1,808	319	2,105	207	2,209	234	2,217	293
Clider (only)	606	162	524	139	537	138	514	109	542	74
Nompilot—Total r/	15,702	5,420	15,438	4 ,808	16,432	4,713	16,470	5,010	21,878	5,486
Mechanic	11,676	4,470	10,719	4,042	10,559	3,429	10,998	3,289	15,089	4,195
Parachute Rigger	214	13	149	12	157	9	149	11	194	11
Ground Instructor	1.524	371	1,283	293	1,359	343	1,386	323	1,825	366
Dispatcher	632	i	755	3	622	1 3	516	1	533	3
Flight Nevigator	15	2	14	l 0	1	۱ ٥	17	0	4	С
Flight Engineer	1,641	563	2,518	458	3,734	929	3,404	1,386	4,233	911
Flight Instructor										
Certificates 2/	4,614	7,698	4,075	6,828	4 ,298	5,921	4,628	5,421	6,327	6,378
Instrument Ratings 3/	0	11,078	0	10,845	0	11,673	o	13,688	0	18,296

(P) Preliminary

Y Revised.

F/A Not available.

Note: Additional ratings are entered on current airmon certificates as follows:

Private, commercial, and airline transport pilot-maircraft category, class, and type instrument rating.

Helicopter pilot-instrument and type ratings.

Flight instructor-ratings for each aircraft category in which the holder is qualified, and for instrument flying instruction.

Mechanic - sirframe and powerplant ratings.

Parachute rigger—senior or master rigger—senior or master rigger ratings.

Ground instructor—ratings for each subject in which the holder is qualified to give instruction.

Air traffic control tower operator—junior/senior ratings for airport where holder may control air traffic.

1/ Six mont. total.

2/ Not included in total.

3/ Special ratings shown on pilot certificates represented above; not included in total.

TABLE 17 PILOT CENTUFICATES INSUED, ST CATROCKY AND COMDUCTOR: DECEMBER 31, 1987

Category of Certificates	Total	Original Issuances				Additional Ratings				
	Ratings Issued	Total	Examiner	Inspector	No Test	Total	Exeriner	Inspector	No Test	
Total	216,341	170,865	68,501	251, 87	15,113	45,476	38,352	2,831	4,293	
Pilot-Total	188,977	148,967	52 ,868	86,586	9,533	39,990	34,153	2,693	3,144	
Student	84,958 (P)	84.958(P)	0	84,958 (P)	0	0		0	0	
Private	58,580	42,278	37,115	447	4,716	16,302	15,518	88	696	
Commercial	22,679	11,314	8,144	68	3,102	11,365	9,492	141	1,732	
Airline Transport	19,634	7,678	6,208	1,018	452	11,956	8,890	2,443	623	
Helicopter (only)	2,510	2,217	893	69	1,255	293	181	20	92	
Glider (only)	616	542	508	26	8	74	72	1	1	
Nonpilot-Total	27,364	21,878	15,633	665	5,580	5,486	4,199	138	1,149	
Hechanic	19,284	15,089	12,018	35	3,036	4,195	3,938	0	257	
Parachute Rigger	205	194	88	17	89	11	7	1	3	
Ground Instructor	2,191	1,825	121	2	1,702	366	16	3	347	
Dispetcher	536	533	333	90	110	3	2	0	1	
Flight Nevigator	4	4	0	4	0	0	0	0	0	
Flight Engineer	5,144	4,233	3,073	517	643	911	236	134	541	
Flight Instructor*	12,705	6,327	6,143	148	36	6,378	6,163	200	15	

### (P) Preliminary

Additional ratings are entered on current airman certificates as follows:

Private, Commercial, and Airline Transport Pilot-Aircraft Category, Class and Type Instrument Rating.

Helicopter Pilot-Instrument and Type Ratings.

Flight Instructor-Ratings for each aircraft category in which the holder is qualified to instruct, and ratings for Filgit instructor—matings for each aircraft category as a construction of the construction.

Machanic—Airframe and Powerplant Ratings.

Parachute Rigger— Senior or Master Rigger Ratings.

Ground Instructor—Ratings for each subject in which the holder is qualified to give ground instruction.

Air Traffic Control Towar Operator—Junior/Senior Ratings for airports where holder may control air traffic.

<sup>\*</sup>Special ratings shown on pilot certificates represented above, not included in total.

TABLE 18

INSTRUMENT BATINGS ISSUED: 1987, 1986, 1983

Class of Certificates	1987	1986	1983	Percent Change 1987–1986
Total—All Groups	18,296	13,657	11,078	<u>34</u>
Private Pilots-Total	11,142	8,354	7,034	33
Private Airplane (only)	10,397	7.840	6,549	33
Private Airplane, Private Glider	135	95	92	42
Private Airplane, Commercial Glider	12	ĺ	5	1100
Private Airplane, Private Helicopter	35	29	20	21
Private Airplane, Commercial Helicopter	234	178	149	31
Private Airplane, Private Glider,		}		1
Private Helicopter	1	lo	1	0 '
Dilusto Airplane, Other	328	211	218	55
Commercial Pilots—Total	5,996	4,153	2,956	44
Commercial Airplane (only)	5.044	3,437	2,376	47
Commercial Airplane, Private Glider	48	31	23	54
Commercial Airplane, Commercial Glider	61	31	36	97
Commercial Airplane, Private Helicopter	14	5	5	180
Commercial Airplane, Commercial Helicopter	814	666	495	22
Commercial Airplane, Private Glider,	ł	l		1
Commercial Helicopter	7	3	4	133
Commercial Airplane, Commercial Clider,	1	ľ		
Commercial Helicopter	7	9	14	22
Commercial Airplane, Other	1	1	3	1 -
Rotorcraft Pilots—Total	1,158	1,150	1,088	1
Commercial Helicopter	1.135	1.145	1,685	-1
Commercial Helicopter, Airline Transport Helicopter	20	0	0	
Commercial Helicopter, Commercial Glider	1	li	ì	_
Commercial Helicopter, Other	2	4	2	-50

TABLE 19
STUDENT CERTIFICATES ISSUED, BY HONTH: 1983 - 1987

Month	1983	1984	1985	1986	1987
Total	93,239	90,167 <u>r</u> /	86,060	88,706	84,958(P)
January	6,511	7,485	6,414	6,641	6,098
February	6,146	6,338	5,233	5,590	6,543
March	7,724	7,086	6,809	6,472	7,125
April	6,737	6,931	7,492	488, 7	7,139
Mary	7,650	7,784	7,749	7,415	6,164
June	9,344	8,533	8,279	8,211	8,491
July	9,253	9,202	9,249	9,648	8,973
August	10,426	9,559	8,892	8,886	8,389
September	9,971	7,781	7,973	8,961	8,094 (P)
October	8,040	8,129	7,892	8,133	7,537 (P)
November	6,500	6,291	5,579	5,809	5,750 (P)
December	4,937	5,048	4,499	5 ,452	4,655 (P)
	<u> </u>			<u> </u>	

<sup>(</sup>P) Preliminary

r/ Revised

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